

MAR13-2012-000125

Abstract for an Invited Paper
for the MAR13 Meeting of
the American Physical Society

Julius Edgar Lilienfeld Prize Lecture: Mapping the Universe: Physics Writ Large

MARGARET GELLER, Harvard-Smithsonian Center for Astrophysics

The age of mapping the universe began in earnest in the late twentieth century. I will describe the enormous strides we have made in mapping the galaxy distribution and in understanding its nature and history. I will show how techniques for measuring the (primarily dark) matter distribution in massive systems of galaxies are an astrophysical route to tests of fundamental physics.